

MS APPEAL BRIEF - PATENTS
PATENT
0879-0277P

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

IN RE APPLICATION OF

BEFORE THE BOARD OF APPEALS

APPELLANT: Seiichi MATSUI

Appeal No.:

APPL. NO.: 09/662,323

GROUP: 2612

FILED: September 14, 2000

Examiner: K. L. JERABEK

FOR: IMAGING APPARATUS, SOLID IMAGING DEVICE AND
DRIVING METHOD FOR SOLID IMAGING DEVICE

REPLY BRIEF UNDER 37 C.F.R. § 41.41

MS APPEAL BRIEF - PATENTS

Commissioner of Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

This Reply Brief responds to the Examiner's Answer dated November 27, 2006.

For clarity, the issues presented in the Appeal Brief filed September 26, 2006, will be repeated, and the reply to the Examiner's Answer will substantially correspond structurally to the argument section in the Appeal Brief.

I. ISSUES ON APPEAL:

The issue to be resolved in this application is:

A. Whether claims 4-7, 9-12, 16-19 and 21-24 are unpatentable under 35 U.S.C. § 103(a) based on the teachings of *Yamaguchi et al.* (USP 6,342,921) (hereinafter "*Yamaguchi* ") in view of *Harada et al.* (USPN 6,108,036) (hereinafter "*Harada*"); and

B. Whether claims 8 and 20 are unpatentable under 35 U.S.C. § 103(a) based on the teachings of *Yamaguchi* in view of *Harada* and further in view of *Dischert* (USPN 6,040,869) (hereinafter “*Dischert*”).

II. NEW POINTS OF ARGUMENT RAISED BY EXAMINER’S ANSWER:

Appellant is providing this Reply Brief to respond to new points of argument raised in the Examiner’s Answer. Appellant does not disagree with paragraphs (1)-(8) of the Examiner’s Answer. The specific new points of argument that are raised in paragraph (10) to which Appellant disagrees are as follows:

1. The Examiner introduces new arguments with regard to independent claims 4, 11-12, 16, and 23-24 and incorrectly interprets the teachings of the *Harada* reference. The Examiner further provides additional support for motivation. Appellant’s response to these assertions is discussed in paragraphs A. through I. below.

III. REPLY:

A. The Rejection Fails to Establish *Prima Facie* Obviousness of Independent Claim 4.

In response to the Appellant’s arguments regarding claim 4, the Examiner responds with one argument to address all of the claims and asserts in the Examiner’s Answer on pages 9-10 as follows:

...Yamaguchi states that the signal of only R is read out (thus G is dropped) in the first horizontal period (H1) and the signal of only G is read out (thus R is dropped) in the second horizontal period (H2) (Col. 16, lines 15-32; figures 19 and 20). However, although in each of the two horizontal readout periods (H1, H2) only one of the signals is read out this does not teach that non-adjointing lines are read out. It can be seen in figure 20 that the R signal

that is read out in the first horizontal period (H1) and the G signal that is read out in the second horizontal period (H2) reside on adjoining lines. Thus, Yamaguchi provides the teaching of transferring pixel information of pairs of two adjoining lines (the line containing R from period H1 and the line containing G from period H2) with intervals of a plurality of lines to vertical transferring routes. Harada discloses a signal-processing device (72) that produces image signals by producing pixel information of one line from the pixel information of a pair of two adjoining lines that are read from a solid imaging device during separate output fields (period) (fig. 9; col. 34, lines 23-41). Therefore, the combination of the Yamaguchi and Harada references discloses all of the elements of independent claims 4, 11-12, 16 and 23-24.

Appellant disagrees with the Examiner's characterization of *Harada*, disagrees that *Harada* cures the deficiencies of the teachings of *Yamaguchi*, and disagrees that there is sufficient motivation to combine the teachings of the cited references.

1. The Examiner is misinterpreting the teachings of *Harada* and, as such, Appellant maintains that *Harada* fails to cure the deficiencies of the teachings of *Yamaguchi*

The Examiner asserts that *Harada* teaches a signal-processing device (72) that produces image signals by producing pixel information of one line from the pixel information of a pair of two adjoining lines that are read from a solid imaging device during separate output fields (or period) (fig. 9; col. 34, lines 23-41). Appellant respectfully disagrees with the Examiner's assertions.

The disclosure of *Harada* at col. 23-41 recites as follows:

The FIG. 9 shows an equivalent circuit to the signal processing circuit 72 in the first imaging mode. In this method, the circuit outputs $\{(N/2).times.M\}$ kinds of add signals during output from each field.

Combinations of light-receiving regions d to be added differ depending upon a time when the first field outputs or when the second field outputs. In the case of output from the first field, for example, a light-receiving signal from a light-receiving region $d(n, m)$ belonging to the n-th row and the m-th column array is added to a light-receiving signal from a light-receiving region $d(n+1, m)$ belonging to the (n+1)-th row and the m-th column array. In the case of output from the second field, a light-receiving signal from a light-receiving region $d(n, m)$ is added to a light-receiving signal from a light-receiving region $d(n-1, m)$ belonging to the (n-1)-row and the m-th column array. The processing method for reading the light-receiving signal is generally referred to as "interlacing" or "two-pixel-mixing reading".

As can be seen with respect to Fig. 9, *Harada* discloses that in the first field, a light-receiving signal from a light-receiving region $d(n, m)$ belonging to the n -th row and the m -th column array is added to a light-receiving signal from a light-receiving region $d(n+1, m)$ belonging to the $(n+1)$ -th row and the m -th column array. However, in the second field, a light-receiving signal from a light-receiving region $d(n, m)$ is added to a light-receiving signal from a light-receiving region $d(n-1, m)$ belonging to the $(n-1)$ -row and the m -th column array. During both fields, the information that is processed is information within the array.

However, the Examiner asserts that *Harada* teaches that the output of field one is processed with the output of field two. This is a complete misinterpretation of the teachings of *Harada*. There is no disclosure in *Harada* that is directed to producing image signals by producing pixel information of one line from the pixel information of a pair of two adjoining lines that are read from a solid imaging device during **separate** output fields. The one line of pixel information, as taught by *Harada*, is produced by a pair of two adjoining lines that are read from a solid imaging device during the **same** output field.

2. There is no motivation to modify the teachings of *Yamaguchi* with the teachings of *Harada*

Appellant argued in his Appeal Brief that there was no motivation to modify *Yamaguchi* with the teachings of *Harada*, that *Yamaguchi* taught away from such a modification, and that such an assertion amounted to impermissible hindsight. The Examiner responds to these arguments by 1) repeating his statements regarding the deficiencies of the teachings of the cited references; 2) by merely adding that one skilled in the art would be so motivated as it would provide a means for adding signals outputted from two adjacent light-receiving regions to generate a single output in each field (or period) and producing an effect for limiting vertical spatial frequency, citing to col.

34, lines 20-27, and 51-59 of *Harada*; and 3) by failing to address Appellant's argument that *Yamaguchi* teaches away from the purported modification. Appellant respectfully submits that the Examiner's responses fail to establish why one skilled in the art would be motivated to modify the teaching of *Yamaguchi* in order to satisfy his burden in establishing *prima facie* obviousness.

Harada teaches in col. 34, lines 4-8, that outputs produced by a first and second scanning are referred to as "a first field output" and a "second field output", respectively. Further, at col. 34, lines 20-23, *Harada* teaches that in the first read processing method, an output is generated in each field by adding signals outputted from two adjacent light-receiving regions d of the same column array during acquisition of a single original image. As such, **for each scanning, an output is generated.**

However, *Yamaguchi* already teaches that a single output is generated for each period. At col. 16, lines 23-25, *Yamaguchi* clearly teaches that a single output is generated. As such, the Examiner's statement fails to address why one skilled in the art would be motivated to modify the *Yamaguchi* system that already accomplishes the goal that the Examiner has cited.

In addition, the Examiner asserts that by modifying *Yamaguchi* with the teachings of *Harada*, an effect for limiting vertical spatial frequency would be produced. However, as the Examiner has misinterpreted the teachings of *Harada*, Appellant maintains that such an effect would not be produced, and the Examiner fails to provide any evidence that such an effect would be achieved.

As such, Appellant maintains that, for the reasons set forth above, and for the reasons set forth in Appellant's Appeal Brief, that the Examiner has failed to establish *prima facie* obviousness

by failing to provide references that teach or suggest all of the claim elements, and further, by failing to a proper statement as to why one skilled in the art would be motivated to modify the *Yamaguchi* system with the purported teachings of *Harada*. As such, Appellant maintains that claim 4 is patentable over the references as cited.

B. The Rejection Fails to Establish *Prima Facie* Obviousness of Independent Claim 11.

The Examiner provides one set of arguments for all of the independent claims. Appellant maintains that, as noted above with regard to claim 4, and as argued in Appellant's Appeal Brief, the cited references, either alone or in combination, fail to teach or suggest all of the claim elements and there is no motivation to modify the teachings of *Yamaguchi* with the teachings of *Harada*.

As such, Appellant maintains that the Examiner has failed to establish *prima facie* obviousness in his rejection and thus, claim 11 is not obvious over the references as cited.

C. The Rejection Fails to Establish *Prima Facie* Obviousness of Independent Claim 12.

The Examiner provides one set of arguments for all of the independent claims. Appellant maintains that, as noted above with regard to claim 4, and as argued in Appellant's Appeal Brief, the cited references, either alone or in combination, fail to teach or suggest all of the claim elements and there is no motivation to modify the teachings of *Yamaguchi* with the teachings of *Harada*.

As such, Appellant maintains that the Examiner has failed to establish *prima facie* obviousness in his rejection and thus, claim 12 is not obvious over the references as cited.

D. The Rejection Fails to Establish *Prima Facie* Obviousness of Independent Claim 16.

The Examiner provides one set of arguments for all of the independent claims. Appellant maintains that, as noted above with regard to claim 4, and as argued in Appellant's Appeal Brief, the cited references, either alone or in combination, fail to teach or suggest all of the claim elements and there is no motivation to modify the teachings of *Yamaguchi* with the teachings of *Harada*.

As such, Appellant maintains that the Examiner has failed to establish *prima facie* obviousness in his rejection and thus, claim 16 is not obvious over the references as cited.

E. The Rejection Fails to Establish *Prima Facie* Obviousness of Independent Claim 23.

The Examiner provides one set of arguments for all of the independent claims. Appellant maintains that, as noted above with regard to claim 4, and as argued in Appellant's Appeal Brief, the cited references, either alone or in combination, fail to teach or suggest all of the claim elements and there is no motivation to modify the teachings of *Yamaguchi* with the teachings of *Harada*.

As such, Appellant maintains that the Examiner has failed to establish *prima facie* obviousness in his rejection and thus, claim 23 is not obvious over the references as cited.

F. The Rejection Fails to Establish *Prima Facie* Obviousness of Independent Claim 24.

The Examiner provides one set of arguments for all of the independent claims. Appellant maintains that, as noted above with regard to claim 4, and as argued in Appellant's Appeal Brief, the cited references, either alone or in combination, fail to teach or suggest all of the claim elements and there is no motivation to modify the teachings of *Yamaguchi* with the teachings of *Harada*.

As such, Appellant maintains that the Examiner has failed to establish *prima facie* obviousness in his rejection and thus, claim 24 is not obvious over the references as cited.

IV. CONCLUSION

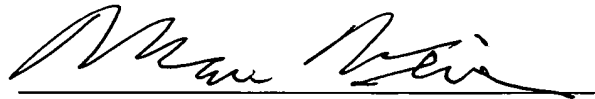
For all the reasons set forth above, the rejections in the Examiner's Answer dated November 27, 2006, are improper. It is therefore respectfully requested that the Examiner be reversed on all grounds.

Dated: **JAN 26 2007**

Respectfully submitted,

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